

Amendments to the Specification

Please replace the table on page 1 with the following amended table:

Docket #	Serial #	Title
CNTR:2021	<u>09/849736</u>	SPECULATIVE BRANCH TARGET ADDRESS CACHE
CNTR:2022	<u>09/849658</u>	APPARATUS, SYSTEM AND METHOD FOR DETECTING AND CORRECTING ERRONEOUS SPECULATIVE BRANCH TARGET ADDRESS CACHE BRANCHES
CNTR:2023	<u>09/849734</u>	SPECULATIVE HYBRID BRANCH DIRECTION PREDICTOR
CNTR:2050	<u>09/849822</u>	DUAL CALL/RETURN STACK BRANCH PREDICTION SYSTEM
CNTR:2052	<u>09/849799</u>	SPECULATIVE BRANCH TARGET ADDRESS CACHE WITH SELECTIVE OVERRIDE BY SECONDARY PREDICTOR BASED ON BRANCH INSTRUCTION TYPE
CNTR:2062	<u>09/849754</u>	APPARATUS AND METHOD FOR SELECTING ONE OF MULTIPLE TARGET ADDRESSES STORED IN A SPECULATIVE BRANCH TARGET ADDRESS CACHE PER INSTRUCTION CACHE LINE

Please amend paragraph 81 on page 35 of the disclosure as follows:

[0081] The non-speculative branch direction predictor 412 generates a non-speculative prediction of the direction of a branch instruction 444, i.e., whether the branch will be taken or not taken, in response to the instruction decode information 492 received from the instruction decode logic 436. Preferably, the non-speculative branch direction predictor 412 includes one or more branch history tables for storing a history of resolved directions of executed branch instructions. Preferably, the branch history tables are used in conjunction with decode information of the branch instruction itself provided by the instruction decode logic 436 to predict a direction of conditional branch instructions. An exemplary embodiment of the non-speculative branch direction predictor 412 is described in U.S. Patent No. 6,550,004 entitled application serial number 09/434,984 (~~Docket Number CNTR:1498~~)—HYBRID BRANCH PREDICTOR WITH IMPROVED SELECTOR TABLE UPDATE MECHANISM, having a common assignee and which is

hereby incorporated by reference. Logic that ultimately resolves the direction of the branch instruction preferably resides in the E-stage 326 of the pipeline 300.

Please amend paragraph 84 on page 37 of the disclosure as follows:

[0084] An exemplary embodiment of the non-speculative call/return stack 414 is described in U.S. Patent No. 6,314,514 entitled application serial number 09/271,591 (~~Docket Number CNTR:1500~~) METHOD AND APPARATUS FOR CORRECTING AN INTERNAL CALL/RETURN STACK IN A MICROPROCESSOR THAT SPECULATIVELY EXECUTES CALL AND RETURN INSTRUCTIONS, having a common assignee and which is hereby incorporated by reference.

Please amend paragraph 85 on page 37 of the disclosure as follows:

[0085] The non-speculative target address calculator 416 generates the non-speculative target address 354 of Figure 3 in response to the instruction decode information 492 received from the instruction decode logic 436. Preferably, the non-speculative target address calculator 416 includes an arithmetic logic unit for calculating a branch target address of PC-relative or direct type branch instructions. Preferably, the arithmetic logic unit adds an instruction pointer and length of the branch instruction to a signed offset comprised in the branch instruction to calculate the target address of PC-relative type branch instructions. Preferably, the non-speculative target address calculator 416 includes a relatively small branch target buffer (BTB) for caching branch target addresses of indirect type branch instructions. An exemplary embodiment of the non-speculative target address calculator 416 is described in U.S. Patent No. 6,609,194 entitled application serial number 09/438,907 (~~Docket Number CNTR:1507~~) APPARATUS FOR PERFORMING BRANCH TARGET ADDRESS CALCULATION BASED ON BRANCH TYPE, having a common assignee and which is hereby incorporated by reference.